



Name: \_\_\_\_\_  
Mr. Tiénou-Gustafson & Mr. Bielmeier  
Geometry, Period \_\_\_\_\_  
Due Date: Thu, \_\_\_\_\_

HW128\_Kites

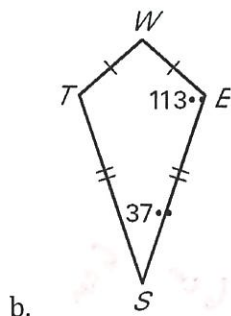
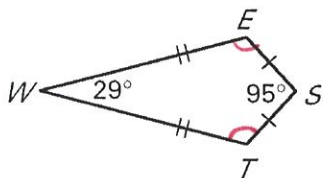
**Geometry  
Homework**

Failure to show all work (mark up all diagrams and write out needed formulas) and/or write in complete sentences will result in LaSalle.

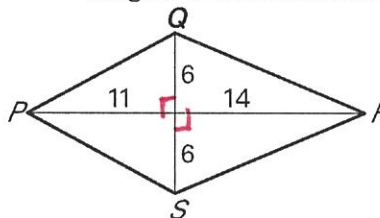
## Quiz Tomorrow! Trapezoids & Kites & Rhombi

+ formulas for area & perimeter of squares, rectangles, rhombi (using height and using diagonals), parallelograms, trapezoids, and kites. Make a plan to memorize these!

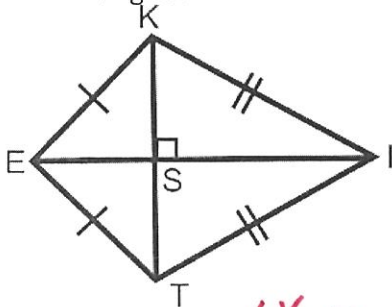
- 1) WEST is a kite. Find the measures of the missing angles.



- 2) Use the Pythagorean Theorem to find the side lengths of the kite. Find the perimeter.

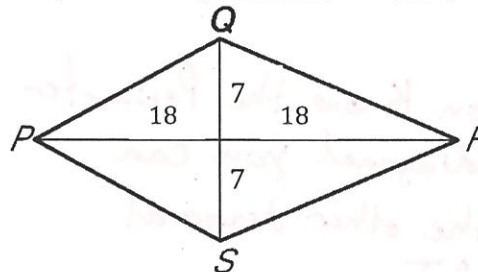


- 3) If  $\angle KET$  measures 100 degrees, and  $\angle KIT$  measures 24 degrees, find the missing angles.



$m\angle K =$   
 $m\angle T =$

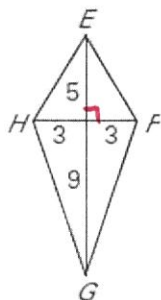
- 4) Find the perimeter AND area of the rhombus:



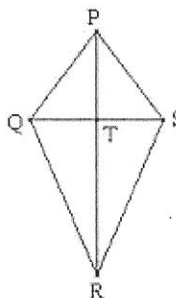
$\overline{PQ} =$

$\overline{QR} =$

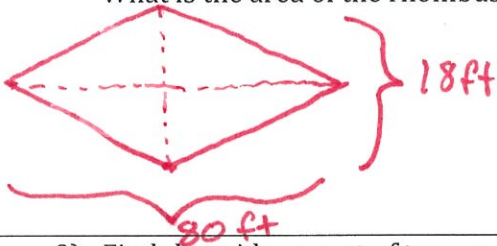
- 5) Find the area of the kite below.



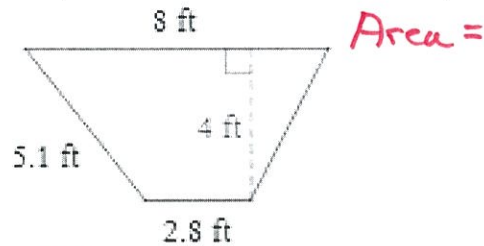
- 6) In the kite below,  $PQ = 5$  cm,  $PS = 5$  cm,  $QS = 6$  cm, and  $TR = 12$  cm. What is the area of the kite?



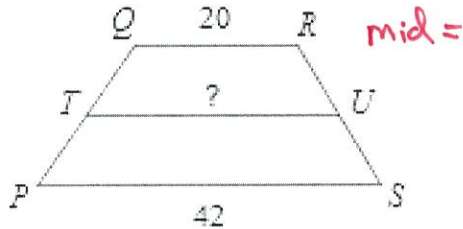
- 7) A rhombus has diagonals of 18 ft and 80 ft. What is the area of the rhombus?



- 8) Calculate the area of the trapezoid below:

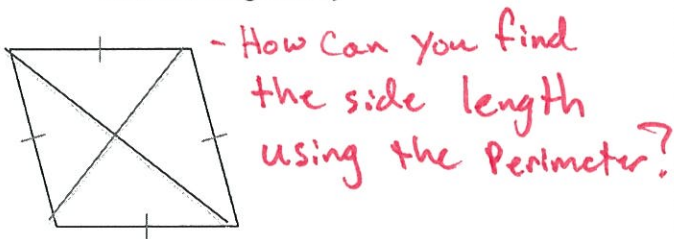


- 9) Find the midsegment of trapezoid PQRS:



- 10) If PQRS in the problem to the left is an isosceles trapezoid with a side PQ of 10, find the area. (Hint: the side is not the same as the height! Make a right triangle!)

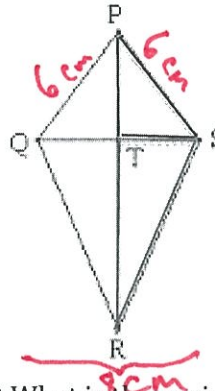
- 11) A rhombus has a perimeter of 52 in. The length of the longer diagonal is 24 in. What is the area of the rhombus? (Hint: you need to find the diagonals!)



- How can you find the side length using the Perimeter?

- If you know the Perimeter and 1 diagonal you can find the other diagonal using P.T.

- 12) In the kite below,  $PQ = 6$  cm,  $PS = 6$  cm,  $QS = 8$  cm, and  $TR = 12$  cm. If  $QS = 8$ , then  $TS = \underline{\hspace{1cm}}$ . Label all the given sides.



- a) What is the perimeter of the kite? Show your work:

- b) What is the area of the kite? Show your work: